

## ABSTRACT

A head assembly for a reactor pressure vessel includes a removable closure head, an array of control rod drive mechanisms, a seismic support platform, a missile shield assembly and a cooling system for drawing atmospheric air across electro-magnetic coil stack assemblies. The cooling system includes: a lower shroud surrounding the coil stack assemblies with an end open to the atmosphere around the CRDMs; a plurality of extending internal ducts disposed within the array of CRDMs upwardly to an upper plenum disposed above the seismic support platform and a plurality of fan assemblies disposed on the upper plenum. The missile shield is disposed within the upper plenum. The cooling system effectively cools the coil stack assemblies during fuel cycles and does not hinder access to the CRDMs during an outage. The head assembly has lift legs for transporting either the entire head assembly as an integral unit or the structure above the seismic support platform a subassembly.